

BLUE MOULD WARNING SERVICE GENERAL REPORT FOR 2001

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Introduction:

The Blue Mould Warning Service of CORESTA has been active since 1963, and is coordinated by the General Secretariat in Paris. It covers the following zones and countries, although a contact has not necessarily been established with every single country listed in the table hereunder.

Zones and countries

North Africa: Algeria, Morocco, Tunisia

Middle-East: Iran, Lebanon, Syria, Turkey

South East Europe: Albania, Bulgaria, Croatia, Cyprus, Greece, Macedonia, Romania, Serbia

South West Europe: France, Italy, Portugal, Spain

Northern & Central Europe: Austria, Belgium, Germany, Hungary, Poland, Slovakia, Switzerland

Thirty-six organisations from twenty-four countries participated in 2001 in the Blue Mould Warning Service (same figures as for 2000).

Eighteen warnings (against ten in 2000), signalling thirty areas of infestation in the investigated zone, were despatched by the General Secretariat to the participating Organisations, and also, for the first year, displayed on the CORESTA web-site.

General Outlook

Overall there was little damage from blue mould in 2001, but the time spread of the outbreaks was unusual, with apparently no activity from mid-May to early July, and many outbreaks in July and early August. Climatic conditions in Europe were also unusual, with a very wet spring and early summer.

The disease has shown up sporadically in most countries and only careful preventive treatments can ensure a proper control of the situation. No metalaxyl-resistant strains have been found in any of the countries surveyed up to now.

The following table gives a summary of the warnings despatched in 2001.

Blue Mould Warning Service - Warnings despatched in 2001

Warning N°	Date of Outbreak	Seedbed (S) Field (F)	Country	Region	Observations
1	22 Feb.	S	Morocco	Ouezzane	Var. dark B47 - stage 4 leaves
2	29 March	S	Tunisia	Tebouldou (Gabès)	Snuff tobacco – Treated with Ridomil MZ58
3	3 April	F	Syria	Coastal area Baniyas	Var. Check Elbent Balady
4	18 April	S	Iran	Northern Iran (Mazandaran) Northwestern Iran (Celestan)	Coker 347 seedbeds, severe outbreaks with strong sporulation Coker 347 and Burley 21 seedbeds at transplanting stage, severe outbreaks with strong sporulation treated with Ridomil MZ
5	14 May	F	Tunisia	North-East (Kelibia) and North (Tabarka)	Lower leaves of dark air-cured tobacco at early stage in the field. Climatic conditions very conducive to the disease. Treated with Ridomil MZ58
6	3 May	S	Morocco	Marrakech	Seedbeds of dark tobacco var. B47, stage 5-6 leaves.
7	6-10 July	F	Poland	5 sites in the Krakow and Lezajsk areas (South)	Varieties Wislica FCV and Burley TN90. 2 to 10 leaves affected by plant, with 2-8 lesions per leaf. Treated with Ridomil - removal of bottom leaves.
8	11 July,	F	Switzld.	Fribourg	First outbreak on FCV var. Golta. Treated with Ridomil – infected plants destroyed.
9	11 July	F	Germany	Forchheim	Two limited outbreaks on FCV varieties Golta and HYV7, that had received proper preventive treatments in the seedbed and field.
10	12-16 July	F	Switzld.	Aargau, Vaux, Fribourg	Outbreaks on var. Burley 92 and Burley 93. Main outbreak 20 m diameter destroyed.
11	16 July	F	Poland	Lezajsk (South)	Outbreak on FCV var. DH-17. Treated with Ridomil.
12	15 July	F	Italy	Umbria	Outbreak on FCV var. ITB 609. Treated with Ridomil Gold.
13	27 June	F	Belgium	Wervik & Beselare	Dark air-cured var. Filippijn – One month after planting. Four fields affected. All seedlings from same greenhouse. Lower leaves affected and removed. Treatment with metalaxyl+mancozeb.

Blue Mould Warning Service - Warnings despatched in 2001 (Continued)

Warning N°	Date of Outbreak	Seedbed (S) Field (F)	Country	Region	Observations
13 (cont'd)	13 July	F	Germany	Baden-Württemberg	Light outbreaks on Burley and FCV, treated with Ridomil TK
14	18 July	F	Belgium	-	Severe infestation on CORESTA trap assortment, var. Bergerac C, Bel 61-10, Samsoun, NC 11-51 and ITB 261.
	16 July	F	France	Dordogne	Systemic outbreak on Burley BB16C at flowering stage, on all stalk positions. Affected area destroyed. Preventive treatment suspected insufficient.
15	16-24 July	F	Poland	Zamosc	Burley TN90 Lublin district (eastern Poland) – bottom leaves affected and removed. Ridomil Gold applied.
	26 July	F	Poland	Dziewiecioly	Dark air-cured var. Millennium bud stage. 4-5 leaves infected by plant, removed before harvest.
	26 July	F	France	Alsace	FCV Golta flowering stage. 3 ha affected, but no destruction. Dark ITB1000 and Burley BB16B flowering stage, 3 ha affected, but no destruction.
16	27 July	F	Poland	Lublin (east)	FCV Wislica. Light outbreak. Bottom leaves removed to improve ventilation.
17	31 July	F	France	South-West	FCV ITB 30 Severe outbreak after thunderstorm. Affected plants destroyed. Follow-up treatment with maneb and Acylon.
	31 July	F	France	West	FCV ITB 33024 topping stage. 5 ha affected with some sporulation. 2 ha destroyed. Abundant rains and stagnant waters.
18	31 July	F	Hungary	Poespetri	Var TN 86 Light outbreak on small surface treated with Ridomil Gold 68-WP.
	1 August	F	Germany	Schleswig-Holstein	FCV Golta – Severe outbreak – infected plants destroyed. Treatment with Ridomil TK.
	1 August	F	France	Aveyron (South-west)	FCV ITB 31612 flowering stage. Very humid conditions. No destruction needed.

SITUATION PER GEOGRAPHICAL ZONE

NORTH AFRICA

Morocco

Two outbreaks were recorded on seedbeds, on 22 February at Ouezzane and on 3 May at Haouz (Marrakech). Seedbed loss was negligible, as was the case in 2000. Climatic conditions were not conducive to blue mould in 2001, and preventive measures had been taken under the supervision of the Régie des Tabacs.

Chemicals used for blue mould control are contact fungicides (Maneb, Mancozeb), and systemic fungicides (Cymoxanil, Metalaxyl, Oxadixyl).

Tunisia

The planted surface areas are 3400 ha of a local dark smoking variety (BC 8/4-7/2), with an additional 155 ha of Burley, 9 ha of Virginia and 12 ha of Oriental. Moreover, 160 ha of *N. Rustica* are grown for snuff. This amounts to a total of 3736 ha of tobacco.

The first outbreak of the season occurred on 29 March, in the area of Gabès, on seedbeds of Rustica, and, in total, blue mould affected less than 1% of the BC 8/4-7/2 and Rustica planted areas, with no significant loss.

Preventive treatments with Ridomil MZ 58 are applied from the stage 4 leaves, with one application every 10 days at the dose of 1.5-2 g/l.

No metalaxyl-resistant strains were identified.

MIDDLE-EAST

Iran

Iran grows 17350 ha of tobacco, including 6500 ha of Basma 178-2, 7000 ha of Virginia, 3500 ha of Burley 21 and 350 ha of other types.

Blue mould first appeared on 18 April on seedbeds of Coker 347 and Burley 21 in northern Iran. The weather later in the season was conducive to the disease and some severe outbreaks occurred in the southern part of the country.

Chemicals used for preventive and curative treatments are Ridomil MZ 72 WP and Mancozeb.

Syria

Syria grows approx. 17165 ha of tobacco, including 3221 ha of Burley, 1595 ha of Virginia, 5743 ha of Oriental, 4421 ha of Balady and 2185 ha of Tombac and other types.

The climatic conditions in 2001 were conducive to blue mould, but, due to strict prevention measures, the disease was kept under control. The first outbreak occurred on April 3rd on var. Balady in the coastal area of Baniyas. Less than 4% of the planted areas were affected by blue mould, mostly on Tombac and Balady varieties in the coastal area.

Preventive treatments are made using Mancozeb, while Ridomil MZ and Ripost M Pepite are used for curative treatments.

No metalaxyl-resistant strains were identified.

SOUTH EAST EUROPE

Bulgaria

Frequent rainfall and high temperatures were conducive to blue mould in Bulgaria in 2001. The first outbreak observed was on 20 May, on flue-cured seedlings ready for transplantation near Plovdiv. Some outbreaks occurred until the end of June on all varieties (Virginia, Burley, Oriental) affecting 8-10% of the planted area.

Fungicide treatments with metalaxyl-based formulations were applied successfully.

No metalaxyl-resistant strain was observed.

Cyprus

No occurrence of blue mould was observed on seedbeds or fields.

SOUTH WESTERN EUROPE

France

France grows 8752 ha of tobacco, including 3849 ha of Virginia, 3260 ha of Burley and 1643 ha of dark air-cured. Blue mould affected 0.31%, 0.22% and 0.18% respectively of the areas planted in those three types of tobacco, with estimated losses of 15, 7 and 1 tons respectively.

The outbreaks took place in three main growing regions: the south-west, east (Alsace) and west (lower Loire valley).

The first outbreaks were recorded during the second week of July in two (distant) regions, the south-west and east.

Preventive treatments with fungicides are applied on seedbeds and fields. Resistant varieties are preferred whenever possible, and Acylon Tabac (metalaxyl) is used for curative treatments. A total of 9.9 hectares of tobacco were destroyed due to blue mould.

No metalaxyl-resistant strain has been found in France up to now.

Italy

Italy grows approx 46100 ha of tobacco of various types. Flue-cured represents 19000 ha, Burley (and a small production of Maryland) 11500 ha, Fire-cured 3000 ha, Sun-cured (Oriental) 4600 ha and dark air-cured 8000 ha.

Low temperature and high humidity in the early season were conducive to the disease. A few outbreaks were observed in April on seedbeds in Campania (south), then in May and June on the field. A large proportion (above 25%) of the crop was affected to some degree in Campania, with losses estimated at 5 kg/ha. No significant loss was suffered in other regions of Italy.

Two to three preventive applications of fungicides are practiced on seedbeds, and four to six on the field. Chemicals used are Metalaxyl M alone or mixed with Mancozeb, Fosetyl al + mancozeb + cymoxanil, and oxadixyl+mancozeb.

No resistance to metalaxyl was reported.

Spain

Spain grows 17,412 ha of tobacco, including 12,000 ha of Virginia, 2,900 ha of Burley, 2,300 ha of fermented Burley, 200 ha of Havana and 12 ha of Kentucky.

The first outbreaks were observed on 20 April on Virginia seedbeds and on 10 July in the field. Virginia and Burley varieties were affected. The outbreak on seedbeds was systemic. 2000 m² of seedbeds and 100 ha of fields were affected. The areas concerned are located in the Caceres Province, near Talayuela, Rosalejo, Coria and Barquilla.

Chemical control was used for prevention and cure (metalaxyl).

No losses were incurred.

No resistance to metalaxyl was reported.

CENTRAL AND NORTHERN EUROPE

Austria

Austria grows 110 ha of tobacco, (90% Burley, 10% dark air-cured).

Two blue mould outbreaks were reported at the end of July, in the very eastern part of the country, in both cases with a moderate infestation, the total area concerned being under 1 ha, and the loss 15% of the affected surface. In both cases the preventive fungicide application had not been made.

The Growers Association maintains a control on seedbeds, planting materials and fields. A warning service informs growers of blue mould appearance in Austria (www.bfl.at).

Preventive applications of Ridomil MZ 72 WP (0.25%) are made, the same chemical being used as a curative treatment.

Belgium

Belgium grows a total of 377 ha of tobacco, mainly 336 ha of dark air-cured Fillipijn, 16 ha of other dark air-cured varieties and 25 ha of Burley.

Blue mould outbreaks were reported by 12 farmers. Five outbreaks were severe with heavy losses. The area affected by the disease was estimated to be 5.55 ha (5.50 ha of dark air-cured and 0.05 ha of Burley).

The loss was approx. 8500 kg of dark air-cured.

Mancozeb and maneb are used for preventive treatments, whereas metalaxyl is not registered and can only be used in case of an emergency. This year's first infection started late June in four fields whose plants came from the same greenhouse, where no preventive treatments had taken place.

Germany

Germany grows 4,621 ha of tobacco including 2,318 ha of Virginia, 936 ha of Burley and 1,367 ha of dark air-cured. The largest producing area is the south-western part of the country.

In 2001, Blue mould outbreaks occurred earlier than usual (early July). The following areas were affected:

Cooperative Baden-Württemberg : 20 ha of Burley tobacco (var. Jupiter) near Heidelberg; in southern Hesse one ha of FCV ITB 3305 was destroyed.

Cooperative South-West : One light outbreak only, in Rheinland-Pfalz on FCV ITB 3305 in July.

Cooperative North-East : Light outbreak on FCV Golta.

In Schleswig-Holstein, 3.5 ha had to be destroyed, after a late outbreak in August.

All tobaccos are treated with Ridomil TK in seedbeds and on the field.

No resistance to metalaxyl has been found in Germany until now. Some problems encountered in 2001 were probably due to the combination of 1) a high infection pressure early in the season; 2) climatic conditions conducive to blue mould; 3) insufficient first application of fungicide on the field (around 20 June).

Hungary

Hungary grows approx. 5500 ha of tobacco. In 2001 a single infection was observed on 31 July in the north-east of the country, affecting 0.3 ha and resulting in a loss of 0.3 ton.

Growers are advised to take preventive measures. Chemicals used are Ridomil Gold 68WP, Galben M, Alliette 80WP, Dithane M45 and Zineb.

Poland

Poland grows 13633 ha of tobacco, including 7794 ha of Burley, 5344 ha of FCV and 495 ha of dark air-cured. The total tobacco production is estimated to be approx. 28000 tons.

Blue mould occurred sporadically on Virginia (var. Wislica), Burley TN90 and dark air-cured plantations in southern (Krakow, Lezask) and south-eastern (Zamosc) regions of Poland during the whole month of July. In August, the weather conditions were unfavourable to the disease and prevented its extension.

Area affected by blue mould was approx. 33 ha, and the resulting loss 48 tons.

Seedbeds are treated with mancozeb, fields with a combination of mancozeb and either metalaxyl (Ridomil MZ) or dimetomorph (Acrobat MZ).

Switzerland

Switzerland grows 650 ha of tobacco, including 90% of Burley and 10% of Virginia.

In 2001, the first outbreak was observed on 11 July, and approx. 50 ha Burley and 7 ha Virginia were affected by blue mould, in the Broye plain (Vaud and Fribourg cantons) and Aargau, but losses were insignificant as no plot was destroyed.

Growers must strictly abide by preventive dispositions and declare any outbreak of blue mould. Seedbeds are treated with Zineb twice a week. Systemic fungicides are forbidden on seedbeds. Fields are treated every other week with Maneb. No treatment is allowed less than one week before harvest.

When an outbreak is discovered, it must be declared to the cantonal phytosanitary service. Infected plots are destroyed and neighbouring zones treated with systemic fungicides (phenylamids, Mancozeb).

Sanitation precautions include destroying seedbeds after transplanting, early harvesting of lower leaves, and burrowing of plants after harvest.